P-SYSTEM



For the BBC Microcomputer Model B with 6502 Second Processor

P-SYSTEM

An Internationally Recognised Standard Operating System



Until recently, most versions of Pascal and Fortran on microcomputers have been limited versions of the real thing, omitting some of their most useful and vital features.

Now Acornsoft have launched UCSD p-System running on the BBC Microcomputer Model B with disc interface and 6502 Second Processor.

Acornsoft's p-System offers both Pascal and Fortran 77 language compilers and, of course, includes the P code interpreter which will allow you to run so many of those 'off the shelf' programs.

The p-System is ideally suited to the application and serious programmer in both business and academic environments. It is ideal for teaching purposes, a major advantage for Fortran programmers wishing to learn Pascal, the highly structured son of Basic and Fortran 77.

The Acornsoft p-System is the ultimate logical development of the current spate of high level languages available on microcomputers. It is not just a command processor, but a complete operating system with all the necessary run-time and development tools fully integrated to the same standard. It offers a complete set of development utilities, a full screen, full function editor and file manager.

It is a modular system which means that it can be expanded to suit your requirements, yet remain fully integrated. Programs written under Acornsoft's p-System are compiled to be very compact and efficient, an absolute must when producing programs for microcomputers.

MAJOR FEATURES

Screen Editor A powerful screen-oriented editor equally suited to editing programs and to word processing, it is generally acknowledged to be one of the most comprehensive editors available.

Command Menu On the screen at all times is a Menu showing the options available to the user at the time. This means that single keystrokes can invoke the required command. Meaningful prompts are shown on the screen all the way through the system, so that the user does not have to learn the meaning of cryptic messages.

BBC Utilities Specific utilities give access both to the special features of the BBC Microcomputer's operating system including screen windows, graphics and disc formats, and to the p-System's configuration record.

File Manager Designed to help application users to manage discs and other peripherals, the File Manager can display directories of discs and perform other file operations. It allows transfer of files (singly or in groups) between discs, or from other discs to peripherals, such as the console or printer.

Library Manager This utility is used by application users to reorganise library routines when installing an application.

Disc Recovery Tools Three utilities are provided in this category. Recover is used when the directory of a disc becomes unusable for some reason. Recover may be able to locate and restore many of the files. The other two utilities, MarkDupDir and CopyDupDir, are for use with backup directories.

Configuration Utility The utility program allows the user to copy and format discs, set the screen mode and window in which the p-System functions, download the function keys and configure serial channels.

Other Operating System Services These comprise a large collection of p-System facilities which are transparent to application users but which vitally affect the successful operation of the applications. For example, the p-System can handle very large programs on relatively small computers by storing only the active sections of the program in main memory. New sections are brought into memory automatically when they are needed.

Application Services These facilities are also transparent to the application user, except when used by application programs. Services available include graphics and screen management.

The Advanced Development Tool Kit This is available separately from TDI, extending the capabilities of the system to access more advanced applications services. The Tool Kit includes a Native Code Generator, a Symbolic debugger, and Assembler and Linker and a set of Program Analysis Tools.

LANGUAGE COMPILERS

The language compilers, UCSD Pascal and Fortran 77 offered on Acornsoft's p-System, provide an extremely flexible service for the programmer. They are finely tuned to produce the compact programs that are essential for micro-computers.

The service they provide extends into the more complex areas of error correction. When compiling a program, the p-System language compilers will identify any errors in the inputted code and the programmer will be given the option to return directly to the editor. This is an invaluable asset to the user, as the cursor is positioned against the error and hence will dramatically reduce the number of compilation or error correction cycles necessary.

In addition, the user can set up 'units' of clean code; these are modules of code that can be used repeatedly. This saves considerable compilation time and reduces the areas where errors could possibly be introduced. In addition to the units set up by the user, there are a number of very useful library routines included within the p-System which can, of course, be incorporated in the user's own programs.

The two language compilers offered in Acornsoft's p-System are very much enhanced versions of their original derivatives. UCSD Pascal is a highly extended version of standard Pascal. It offers many extensions to the language, particularly in the areas of screen handling, memory management and I/O handling. Fortran 77 has four compiler directives, which allow the declaration of library files, compiler cross reference listings, the ability to call assembler routines and to copy other source files from within the program being written.

In addition, Acornsoft's p-System enables the user to call Pascal routines from within a Fortran 77 program.

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